



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/863,273	05/24/2001	Cheol Jin	2950-0194P	9250

2292 7590 03/19/2003

BIRCH STEWART KOLASCH & BIRCH
PO BOX 747
FALLS CHURCH, VA 22040-0747

EXAMINER

PSITOS, ARISTOTELIS M

ART UNIT	PAPER NUMBER
----------	--------------

2653

12

DATE MAILED: 03/19/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

R

Office Action Summary

Application No.

09/863,273

Applicant(s)

JIN, CHEOL

Examiner

Aristotelis M Psitos

Art Unit

2653

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 January 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) all is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Art Unit: 2653

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 1/6/03 and 12/5/02 have been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakashima et al considered with Ishikawa et al and all further considered with Finkelstein et al.

Nakashima et al discloses a recording system wherein the recording modes are altered between a CAV and a CLV mode – see the discussion of tables 1-5. Although the recording mode commences in a CLV mode inner region first, the repositioning of the re-writable region to the inside is considered merely an obvious variation, e.g., rearrangement of components, the re-writable region to the interior region, and the read only segment to the outside of the disc.

Art Unit: 2653

Although Nakashima et al doesn't rely upon a wobble signal for the ability to determine the CAV or CLV mode, the ability of having such a signal for determining CLV and CAV modes is taught by the Ishikawa et al system.

Furthermore, it isn't explicitly clear in Nakashima et al if the detection/reading is during the writing. Finkelstein teaches the ability of having a read during write process in the recording arts. ✓

It would have been obvious to modify the base system of Nakashima et al and use the wobble signal format for clv, cav modes, motivation is to update the Nakashima et al system to use present signal formats readily available in this environment. Furthermore, motivation in using r-d-w (read during write) abilities would be to reduce any down time between writing and reading, i.e., one can read the written information after the write process are completed, read after write, but such takes time, and doing such a read during write reduces such delays. Hence, the writing process is shorten.

5. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maeda further considered with Ishikawa et al and all further considered with Ho et al and Official Notice. The following analysis is made. *dupe*

Maeda et al disclose recording systems, wherein rotation speed of the optical system is appropriately controlled. Although the information is recorded with appropriate identification of what mode is in use, there is no disclosed ability of detecting such while recording.

The examiner concludes that read – during write operations are notoriously old and well know. It would have been obvious to one of ordinary skill in the to use well-known read – during write ability to permit detection of the input signal for correction thereof prior to final recording.

The ability to determine the current recording speed based on the predetermined signal – i.e., the signals detected in Maeda is taught by the Ishikawa et al reference –e.g. the detection of the atip frame signal. The examiner equates such a determination to be analogous to the determination from that of Maeda.

Alternatively Ho et al teaches the relationship between position and speed of information at the track – see discussion with respect to figures 5A-B.

Art Unit: 2653

The additional step (d) limitation is also found in Ishikawa et al – wherein the comparison is done with respect to figure 2 and as further indicated in col. 8 lines 3 plus.

Finally, the ability to switch recording modes upon such a determination is considered to be evident since the base references are concerned with recording abilities.

With respect to claims 2 & 3, the ATIP signal is both a sync signal. Detection of a period of the predetermined signal is interpreted as the ATIP signal period.

6. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to claim 1 above as stated in either paragraph 4 or 5, and further in view of Okada et al

With respect to the limitations of claim 6, the Okada et al system provides for the encoding ability.

It would have been obvious to modify the above noted references relied upon with respect to claim 1, with the further encoding ability of Okada et al – again, selection of a type of discrimination signal/ predetermined signal to be detected, is considered merely a selection between equivalents. That is, whether the predetermined signal is either: a sync, ATIP, a code indicative of the encoding scheme, or a signal indicative of a mode (CAV/CLV) is not of moment, but equivalent abilities.

7. Claims 4,5, and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over the references as relied upon in either paragraphs 3 or 4 and all further considered with Okada et al.

Again, as stated in paragraphs 3 or 4, systems are disclosed for recording wherein appropriate discrimination ability to detect either CAV or CLV modes of operation is included.

Ishikawa et al detects an appropriate signal compares such with a reference and permits switch of motor control appropriately.

Okada et al further teaches the ability of using wobble frequency as a discrimination signal.

It would have been obvious to modify the base system of either Mashimo or Maeda and modify such with Ishikawa et al and Okada et al so as to detect a If wobble frequency signal and appropriate control further signal processing as a result of comparing such with a predetermined frequency, see Okada et al at col. 2 lines 54 plus.

Art Unit: 2653

It would have been obvious to modify the base system of Ishikawa et al and use detection of wobble frequency since such is considered merely a selection of equivalents, i.e., measuring wobble frequency or frame sync are equivalents.

8. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over either Maeda et al or Nakashima et al each further considered with Syracuse.

Either Maeda et al or Nakashima et al disclose systems wherein the recording modes are appropriate selected, switched predicated upon proper mode determinations/detection condition. It is noted that the rotating modes are not changed, but rather the recording modes.

The ability of either varying the rotating mode, or the recording mode in this environment predicated upon either CAV or CLV modes of operations are taught by the Syracuse document.

It would have been obvious to modify the base system of either Nakashima et al or Maeda et al with the above teaching from Syracuse, the ability to vary either the rotation or electronic(s)/recording Subsystems is considered a selection between alternative equivalents, i.e., one could vary one or the other, or in more adaptive systems both.

Motivation to change the rotation as opposed to the recording (mechanics as opposed to electronics) is predicated on such considerations as cost, availability, reliability, etc. No unexpected results are seen to occur from selecting an equivalent mode of performing the cav, clv mode.

9. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to claim 8 above, and further in view of Okada et al.

With respect to the limitations of claim 9, as known, frequency of the wobble signal(s) can be detected and measured – see Okada et al at col. 2 lines 54 plus.

It would have been obvious to modify the base system either Maeda et al or Nakashima et al and use detection of wobble frequency since such is considered merely a selection of equivalents, i.e., measuring wobble frequency or frame sync are equivalents, and selection between alternative equivalents is predicated on engineering criteria such as cost, availability, reliability, etc.

With respect to claim 10, the additional limitations of decoding and detecting the predetermined signal are considered present, i.e., the wobble signal is the predetermine signal, and decoding of such is

Art Unit: 2653

inherently preformed. Alternatively, if applicant can convince the examiner that such is not inherently present in Okada et al, then the examiner would further rely upon Ishikawa et al for the atip signal as the predetermined signal limitation and decoding of such.

Conclusion

Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

In addition, applicant's argument with respect to Maeda et al is not persuasive. As interpreted by the examiner the Maeda et al system does provide for recording of information in a cav mode, and appropriately changing the recording mode to a clv if necessary by the electronic variation of the appropriate signals, see col. 6 line 53 to col. 8 line 24 for instance.

Any inquiries concerning missing papers/references, etc. must be directed to: Group 2600 Customer Services at (703) 306-0377.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is: (703) 305-4700.

Any inquiry concerning the merits of this communication or earlier communication from the examiner should be directed to Aristotelis M. Psitos whose telephone number is: (703) 308-1598. The examiner can normally be reached on Monday- Thursday 8-4 EST. Messages can be left on the recording device.

If attempts to reach the examiner, or any of the above telephone contact points are unsuccessful, the examiner's supervisor, W. Korzuch can be reached on: (703) 305-6137.

The FAX number for the organization where this application or proceeding is assigned is: (703) 872-9314.

Aristotelis M. Psitos
Senior Primary Patent Examiner
Art Unit 2653



AMP
March 13, 2003